

Form PTO-1390		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTORNEY'S DOCKET NUMBER P20085
TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A FILING UNDER 35 U.S.C. 371		U.S. APPLICATION NO. (If known, see 37 CFR 1.5) 09/647,921	
INTERNATIONAL APPLICATION NO. PCT/FR99/00850	INTERNATIONAL FILING DATE 13 April 1999	PRIORITY DATE CLAIMED 14 April 1998	
TITLE OF INVENTION DEVICE FOR ASSOCIATING A CONTAINER AND A COMPUTERIZED DEVICE MONITORING ITS CONTENTS			
APPLICANT(S) FOR DO/EO/US Jean-Claude MONGRENIER			
Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information.			
<ol style="list-style-type: none"><li><input type="checkbox"/> This is a FIRST submission of items concerning a filing under 35 U.S.C. 371.</li><li><input checked="" type="checkbox"/> This is a SECOND or SUBSEQUENT submission of items concerning a filing under 35 U.S.C. 371.</li><li><input type="checkbox"/> This express request to begin national examination procedures (35 U.S.C. 371(f)) at any time rather than delay examination until the expiration of the applicable time limit set in 35 U.S.C. 371(b) and PCT Articles 22 and 39(1).</li><li><input type="checkbox"/> A proper Demand for International Preliminary Examination was made by the 19th month from the earliest claimed priority date.</li><li><input type="checkbox"/> A copy of the International Application as filed (35 U.S.C. 371(C)(2))<ol style="list-style-type: none"><li><input type="checkbox"/> is transmitted herewith (required only if not transmitted by the International Bureau).</li><li><input type="checkbox"/> has been transmitted by the International Bureau.</li><li><input type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US).</li></ol></li><li><input checked="" type="checkbox"/> A Translation of the International Application into English (35 U.S.C. 371 (c)(2)).</li><li><input type="checkbox"/> Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))<ol style="list-style-type: none"><li><input type="checkbox"/> are transmitted herewith (required only if not transmitted by the International Bureau).</li><li><input type="checkbox"/> have been transmitted by the International Bureau.</li><li><input type="checkbox"/> have not been made; however, the time limit for making such amendments has NOT expired.</li><li><input type="checkbox"/> have not been made and will not be made.</li></ol></li><li><input type="checkbox"/> A translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3))</li><li><input checked="" type="checkbox"/> An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).</li><li><input type="checkbox"/> A translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (U.S.C. 371(c)(5)).</li></ol>			
Items 1-16. below concern other document(s) or information included:			
<ol style="list-style-type: none"><li><input type="checkbox"/> An information Disclosure Statement under 37 CFR 1.97 and 1.98.</li><li><input type="checkbox"/> An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.</li><li><input type="checkbox"/> A FIRST preliminary amendment. <input type="checkbox"/> A SECOND or SUBSEQUENT preliminary amendment.</li><li><input type="checkbox"/> A substitute specification.</li><li><input type="checkbox"/> A change of power of attorney and/or address letter.</li><li><input checked="" type="checkbox"/> Other items or information: Cover Letter Copy of Form PCT/DO/EO/905</li></ol>			
11/14/2000 ERIMANDU 00000029 09647921			
01 FC:254 65.00 QP 02 FC:156 130.00 QP			

U.S. APPLICATION NO. (If known, see 37 CFR 1.5) 09/647,921		INTERNATIONAL APPLICATION NO. PCT/FR99/00850		ATTORNEY'S DOCKET NUMBER P20085	
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17. <input checked="" type="checkbox"/> The following fees are submitted:  Basic National Fee (37 CFR 1.492(a)(1)-(5)):  Search report has been prepared by the EPO or JPO. . . . . \$ 860.00 International preliminary examination fee paid to USPTO (37 CFR 1.482). . . . . \$ 670.00 No international preliminary examination fee paid to USPTO (37 CFR 1.482) but international search fee paid to USPTO(37 CFR 1.445(a)(2)) . . . . . \$ 760.00 Neither international preliminary examination fee (37 CFR 1.482) nor international search fee (37 CFR 1.445(a)(2)) paid to USPTO. . . . . \$ 970.00 International preliminary examination fee paid to USPTO (37 CFR 1.482) and all claims satisfied provisions of PCT Article 33(2)-(4). . . . . \$ 96.00  ENTER APPROPRIATE BASIC FEE AMOUNT =	CALCULATIONS	PTO USE ONLY
	\$ 0.00	

Surcharge of \$130.00 for furnishing the oath or declaration later than <u>  </u> 20 <input checked="" type="checkbox"/> 30 months from the earliest claimed priority date (37 CFR 1.492(e)).				\$130.00	
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Claims	Number Filed	Number Extra	RATE		
Total Claims	13 - 20 =	0	X \$18.00	\$ 0.00	
Independent Claims	1 - 3 =	0	X \$80.00	\$ 0.00	
Multiple dependent claim(s) (if applicable)			+ \$270.00	\$ 0.00	
TOTAL OF ABOVE CALCULATIONS =				\$130.00	
Reduction by 1/2 for filing by small entity, if applicable. Applicant is entitled to Small Entity Status.				\$ 65.00	
SUBTOTAL =				\$ 65.00	
Processing fee of \$130.00 for furnishing the English translation later than <u>  </u> 20 <u>  </u> 30 months from the earliest claimed priority date (37 CFR 1.492(f)).				+	\$130.00
Extension of Time fee in the amount of \$				+	\$
TOTAL NATIONAL FEE =				\$195.00	
Fee for recording the enclosed assignment (37 CFR 1.21(h). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property				+	\$ 0.00
TOTAL FEES ENCLOSED =				\$195.00	
				Amount to be refunded	\$
				Charged	\$

a. ☒ A check in the amount of \$195.00 to cover the above fees is enclosed.

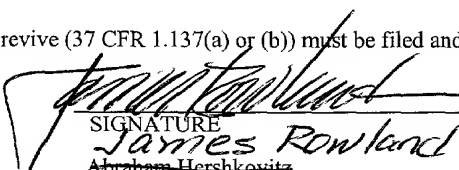
b. ☐ Please charge my Deposit Account No.        in the amount of \$        to cover the above fees.

c. ☒ The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to  
Deposit Account No. 19-0089.

NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and  
granted to restore the application to pending status.

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**DEVICE FOR ASSOCIATING A CONTAINER AND A COMPUTERIZED**  
**DEVICE MONITORING ITS CONTENTS**

Blood transfusion and more generally the medical use of blood and derivative  
5 products thereof pose the problem associated with the state of health of the donor(s),  
involving risk of contamination that can lead to the transmission of diseases to recipients.  
Blood and plasma donation centers currently have databases of information concerning the  
health history of the donors, which are stored in stationary computerized systems and which  
can be accessed from a label comprising a bar code read by a laser reader. These labels are  
10 affixed on the donor bags and on the corresponding control test tubes. Any supplemental  
information requires a new label, also comprising a bar code, to be affixed. Thus, a same  
bag can comprise a plurality of labels comprising a bar code providing access to one or  
several centralized databases.

It seems increasingly necessary to keep the possibility of subsequent access to the  
15 data of the donors or recipient patients, especially in the case of an accident during the  
transfusion; but also because of the discovery of new diseases whose incubation period is  
very long; it is then difficult to identify the origin thereof, unless statistical or correlative  
studies, involving a large number of patients, for example, are carried out over long periods  
of time; and this can be achieved only by systematically accumulating data that can be  
20 subsequently sorted out.

The use of labels comprising a bar code implies reading the label with a laser pen to  
retrieve the data from the corresponding databases, in order to then group and store them for  
subsequent use in another database. This operation, which is performed a posteriori,  
requires going back to the original source of the data each time, which is complicated and  
25 involves risks of omission, for it is always possible to overlook a label.

The object of the invention is to provide an easy and reliable acquisition of the data  
carried on blood bags and derivative products, and to facilitate access to this data as well as  
their storage for subsequent processing. The invention can also be used for numerous other  
applications, such as those which consist, for example, of monitoring a cell culture process,  
30 for which it is necessary to follow the successive steps, or monitoring an organ removed for  
transplant.

In the annexed drawings:

Figure 1 shows a perspective view of a container equipped with the electronic data

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storing device fixed to the container by a fixing means according to a first version of the invention; two gaps have been made to facilitate the description of the device.

Figures 2 and 3 show a perspective view of a container equipped with the electronic data storing device fixed to the container by a fixing means according to another embodiment of the first version of the invention; a gap has been made in each Figure to facilitate the description of the device.

Figure 4 shows the electronic device and its fixing means when it is separated from the container of Figure 3; a gap facilitates the description of the device.

Figures 5A and 5B, 6 and 7 show a perspective view of a container equipped with the electronic data storing device fixed to the container by fixing means according to an alternative embodiment of the invention; a gap has been made in each Figure to facilitate the description of the device.

Figures 8 and 9 show a perspective partial view of the container equipped, by a fixing means according to a second version of the invention, with a data storing device and a protective means; a gap has been made to facilitate the description.

Figure 10 shows a perspective view of a container equipped with the electronic data storing device fixed to the container by a fixing means according to Figure 1, on the one hand, and fixed to a pipe, on the other hand.

Figure 11 shows a perspective view of a container equipped with the electronic data storing device fixed indirectly to the container, according to a variation of the invention, via a pipe.

The invention consists of associating at least one electronic chip affixed to a flexible support 2 (Figure 1) and/or at least one electronic memory card 9 (Figure 8) with a container by fixing means, possibly combined with means for protection against the environment of the electronic chip, the electronic chip being possibly capable of being separated from the container by separating means, while being possibly associated, by retaining means, with a sample of the contents of the container. The container, the characteristics and evolution of the contents of which must be monitored over time, can be rigid or flexible. In the description that follows, one considers that it is made out of a flexible plastic material having a thin wall, which can be, by way of non-limiting example, a bag of blood or derivative product. A certain number of means described can be transposed directly or indirectly on rigid containers; whether it be a flexible container or a rigid container, it is up to the person with ordinary skill in the art to select from among the described means those

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that are best suited for the problem to be solved.

As soon as it is put into operation, the electronic chip makes it possible, for example, upon implementing the container 1 and subsequently during the various control steps, to store all of the necessary data which can be reviewed at any time during the lifetime of the container, and possibly thereafter. It suffices to read what is stored in the chip by means of a compatible apparatus to retrieve immediately all of the information necessary for the implementation, regardless of the location where the contents of the container is used.

The electronic chip can be associated with the container 1 (Figure 1) during its manufacture, or only at the time it is put into operation. By way of non-limiting example, the electronic chip, which comprises an electromagnetic wave activation and communication device, for example, is associated with a flexible support 2, made of plastic, supporting an electric printed circuit 27, and especially the receiving and emitting antenna. By way of non-limiting example, the flexible support 2 is confined in a sealed compartment 3, affixed to the container 1 itself, which is manufactured concurrently with the production of the latter and thus constitutes a protective and fixing means. By way of non-limiting example, the flexible support 2 containing the electronic chip is positioned by welding in the location that is provided to form the sealed compartment 3 at the same time as the pipes 5 and 6 which will be used to fill and empty the container 1 are positioned on a first film 4 which constitutes one of the walls of the container 1 and of the sealed compartment 3 which covers a form welding counter-electrode. A second film 7, constituting the second wall of the container 1, is placed on the first film 4 supporting the pipes 5 and 6 and the flexible support 2, and an electrode is applied on the assembly thus formed to perform the bonding of the two films 4 and 7 by confining the pipes 5 and 6 and the flexible support 2. The sealed compartment 3 can be separated from the container 1 due to a precut 58; the electrodes used are preferably electrodes that function with high-frequency currents when a blood bag, for example, is involved and materials loaded, for example, with ethyl vinyl acetate (EVA) resins, are used. But for other applications, it can be electrodes functioning by Joule effect, and more generally as a function of the films used, any existing or future means for fixing the films 4 and 7 to one another, including adhesion or sewing. In the example selected, the chip and the antenna are permanently fixed to one another and introduced in the same compartment. It is possible that, in certain applications, the electronic chip must be confined, for example, in a metallized sealed compartment forming a Faraday cage to prevent its deterioration, but hinders the functioning of the antenna. In these conditions, the

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electronic chip is provided with electrical contacts that can be accessed from outside the sealed compartment, and which exit therefrom by conductors that can be electrical wires according to the same technique, for example, as that used to connect the pipes to the container, or a printed circuit for which sealing is done, for example, by adhesion. These

5 electrical contacts can be connected to an antenna affixed to the container, and which remains in place when the sealed compartment containing the chip is separated from the container, or indirectly to a computerized device. In other applications, it could be necessary to arrange a plurality of chips, provided with their own communication system that can be different from one chip to the next, associated with the same container. All of these

10 variations are a part of the field of application of the invention. By way of non-limiting example, in a blood donor center with voluntary donors, as soon as the donation is authorized by the doctor, the electronic chip affixed to the container, which is a blood bag that is going to receive the blood sample, is activated by means of an interface device connecting the computerized system and the electronic chip, in order to store therein the

15 useful information about the donor and the characteristics of the donation, in particular the analyses to be conducted on the donation, with the corresponding approval criteria. Next, the data concerning the tests performed on the blood donation are introduced therein. In the absence of a more advanced system, one can, by way of non-limiting example, keep the bar coding system to monitor, for example, the test tubes intended for the check analyses. For

20 example, the results are first stored with the donor's address, from the label affixed to the test tube, in a traditional computerized database. This data is transmitted to the donation center which enters it in the electronic chip of the corresponding bag due to a computerized system verifying the address that was introduced when the electronic chip was activated. Depending on the test results as compared to standards introduced at the time the electronic

25 chip was activated, the bag can be declared suited for transfusion. In the transfusion area, one can have access to the data stores in the electronic chip, and information about the recipient and the conditions of use are introduced therein.

A method of associating a container 1 with an electronic chip affixed to a flexible support 2 is described hereinabove. This way of operating requires that the support be

30 installed during the manufacture of the container 1, which is not always desired; then, the containers, which are susceptible of receiving an electronic chip, are subject during use to environmental stresses that can be severe; by way of non-limiting example, the container may have to withstand centrifugal forces, be kept refrigerated or, conversely, be heated, or

subject to water vapor condensation due to the relative humidity of the atmosphere. The centrifugal force can cause the deterioration of the container by the electronic chip or its flexible support which damages the wall of the container. Humidity or heat can cause the separation of the labels. The plastic material constituting the container can be sensitive to the constituents of certain adhesives that migrate through the walls, which requires determining a fixing method as a function of the environmental stresses to which the container must subsequently be subject. A certain number of fixing methods susceptible of being retained are described hereinafter.

In a first version of the invention, the flexible support 2 (Figure 1) is confined in a compartment formed in particular of at least one of the films used to obtain the container; this is the case of the fixing device previously described in Figure 1, which is constituted of two films 4 and 7 forming the walls of the container. The compartment 28 (Figure 2) can be constituted of a wall 30 which is a part of the container 29 and of a flexible leaf 31 that completely covers the flexible support 2 and overlaps the edges 32 thereof so as to be fixed along its contour on the film constituting the other wall 30 of the compartment 28 by welding or adhesion. In this latter case, the adhesion can constitute a separation means by detachment of the leaf 31 from the support 30. The container 33 (Figure 3) can comprise an associated compartment 34 that serves as a support for a flexible adhesive leaf 35 confining the flexible support 2, whereas the associated compartment 34, which does not need to be sealed comprises, by way of non-limiting example, an opening 36 in which a pipe section closed at its ends, containing blood from the donor, and which is called a flange hereinafter can be inserted. Furthermore, the associated compartment 34 (Figure 4) can be detached from the container 33 (Figure 3) due, for example, to a pre-cut constituting a separation means to make it possible, for example, by way of non-limiting example, to place in the patient's file the associated compartment 34 (Figure 4) containing the electronic chip and a flange 37 containing transfused blood.

In a variation of the invention, the flexible support 2 is confined in a flexible bag, constituting a protective means, made of films of plastic material, separate from the container, and the flexible bag is then fixed directly or indirectly on the container. In a version of this variation of the invention, the flexible bag 38 (Figure 5A) comprises an adhesive product constituting a fixing means and being capable of constituting a separation and retention means, on a surface 40 that makes it possible to fix it directly on a wall of the container 39 or indirectly on a label 41 (Figure 5B), which is itself fixed directly on the

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container 39. The flexible bag 38 can also be fixed directly or indirectly on an associated compartment 34 (Figure 3) with the container 33 as described previously. After the content of the container has been used, the flexible bag 38 (Figures 5A and 5B) can be detached from the container 39 and placed, for example, in the patient's file or can continue to  
5 monitor the initial content that has been transferred into another container. The adhesive portion 40 of the flexible bag 38 can also be used to fix a flange 37 therein (Figure 4) containing a sample of the content of the container. The flange 37 can also be possibly introduced into the flexible bag 38 (Figure 5A and 5B) after an incision constituting another retention means has been made therein.

10 In another version of the variation of the invention, the flexible bag 42 (Figure 6) containing the flexible support 2 is made out of a material that is capable of being welded, for example, by its edges 43, on the container 44 itself. The flexible bag 42 can be welded right in the middle of the wall 45 on one surface of the container 44, either on the outer side or on the inner side, prior to the manufacture of the container 44 itself. The flexible bag 42  
15 can also be welded on the edge 46 of the container 44 at the same time as the edges of the walls 45 and 47 of the container 44 are welded to one another, while being capable of being inside or outside the container 44. By way of non-limiting example, the flexible support 2 can be positioned in a sheath 48 (Figure 7) constituting a protective means, at regular intervals whose pitch, for example, is the width 52 of a container 49 to be manufactured.  
20 The flexible support 2 is positioned on a strip of flat film whose edges 50 are welded longitudinally to form a tube which, for example, comprises transverse welding strips 51 on both sides of the flexible support 2 to prevent the flexible support 2 from being displaced along the sheath 48, and possibly precuts 59 positioned outside the compartment formed by the transverse welding strips 51 and parallel to the latter, constituting a separation means.  
25 The latter is unwound at the same time as one of the films constituting the container 49 in a manner so as to be positioned, for example, transversely with respect to the container 49 and to be welded at the same time as the edge 53 of the container 49, at both ends 54 and 55 of the length of the sheath 48 containing the flexible support 2. The length of the sheath 48 can then be located outside or inside the container 49.

30 In another version of the invention, the electronic chip is activated by electrical contacts 8 (Figure 8), as is done for credit cards issued in France. The electronic chip is then fixed on a rigid thin plate made of plastic, to constitute an electronic memory card 9, in a position where it is possible to read it with a standard reader. This electronic memory card



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9 is fixed after the container 10 by one of the ends that is not susceptible of hindering the reading of the electronic chip by a movable standard reader. There are numerous means for fixing the electronic memory card 9 on the container 10. By way of non-limiting example, the edge 11 of the container 10 comprises a hole 12 having the same diameter as a hole 13 made in the electronic memory card 9, and the assembly is fixed with a fixing device 25, for example, of the type of that which is used to fix identification plates on the ears of bovines. A substantially cylindrical first piece 14 is introduced in the hole 12 of the container 10, whose diameter is slightly greater, comprising at its end an abutment 15 that is larger than the hole 12 so as to prevent it from extending through completely, and retentions 16 on its lateral portion. The electronic memory card 9 is inserted in the cylindrical portion of this first piece 14 through the hole 13 which has been previously made therein, and a second piece 17 for blocking the assembly is inserted, which is larger than the diameter of the hole 13 and comprises a bore provided with clipping elements that become blocked on the retentions 16 of the first piece 14. This operation of fixing the electronic memory card 9 is performed preferably at the time the container 10 is put into operation. The electronic memory card 9 is activated, then provided with the container 10 of the personnel responsible for taking the donation, who fixes the electronic memory card 9 as soon as the donation is completed, and who possibly enters pieces of information therein concerning the donation. It can be necessary to protect the electronic chip, by protective means, from atmospheric elements such as humidity or dust, by protective means. For example, it is possible to associate the electronic memory card 9 with a sheath 18 that covers it after each use. A sheath 24 (Figure 9) can be made affixed to the container 19 itself during its manufacture in the form of two flexible walls 20 and 21 closed on three sides and comprising a hole extending through the two flexible walls 20 and 21, making it possible to maintain the electronic memory card 22 sandwiched between the two flexible walls 20 and 21, in the same manner as described previously, by means of the fixing device 25. It suffices to make the electronic memory card 22 rotate about its axis 23 to retrieve it from its protective sheath 24.

In an improvement of the invention, in the case where, by way of non-limiting example, the container is a blood or plasma bag, the electronic chip and its flexible or rigid support 2 are positioned in the vicinity of the pipe 5 (Figure 10) for filling the container 1, such that one can associate it, using retaining means, with a flange coming from a segment of this pipe 5 filled with the donor's blood or plasma, and the ends of which have been

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sealed by hot pressing the pipe 5, at the same time as other segments, which are adapted to the final check of the blood type before the transfusion, are made. By way of non-limiting example, the pipe 5 passes between the two films 4 and 7, in their portion that is used to manufacture the sealed compartment 3. In this zone, the pipe 5 can be provided, for example, with a sleeve 26 similar to that which is used to obtain the sealing of the assembly of the end of the pipe 5 and of the container. During the formation of the sealed compartment 3, the films 4 and 7 are welded on the sleeve 26. During the donation, the pipe 5 is filled with blood; and when the donation is completed, it suffices to close the pipe 5 on both sides of the sheath 26 by hot pressing the pipe 5 to constitute the flange. After using the container 1, it is then possible to separate from the container 1 the assembly constituted by the flange and the sealed compartment 3 containing the flexible support 2 so as to store it in anticipation of future examinations. Similarly, when one uses the flexible support 2 (Figure 11) confined in a flexible bag 55 that is obtained separately from the container 56, the flexible bag 55 can be fixed by any available means on the pipe 57, by way of non-limiting example, either by welding during the manufacture of the flanges, or by an adhesive that makes it possible to surround the pipe 57 with one end 58 of the flexible bag 55, which is sealed back over itself.

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CLAIMS

1. Device associating a container with a device for storing and consulting data necessary, in particular, for monitoring the content of the container, constituted of at least one electronic chip affixed to a flexible support (2) comprising an antenna that is integrated or connected electrically, either to an attached antenna or directly to a computerized device, or of a rigid electronic memory card (9) that is capable of communicating with computerized systems, either by electromagnetic waves or by direct electrical contact, via appropriate interface devices, characterized in that the container is associated with at least one electronic chip via a flexible support (2) and/or with at least one electronic memory card, which is affixed to the container by fixing means possibly combined with means for protection against the environment of the electronic chip, the electronic chip being capable of being possibly separated from the container by separation means, while being capable of being possibly associated with a sample of the content of the container by retaining means.

2. Device according to claim 1, characterized in that the flexible support (2) is confined in a sealed compartment (3) constituting a protective means which is manufactured concurrently with the manufacture of the container (1) to which it is affixed by the fixing of the second film (7) on the first film (4), which can be obtained by welding, or by adhesion, or by sewing, constituting one of the fixing means, after positioning the flexible support (2) on the film (4) in the area provided to form the sealed compartment (3) being capable of being separated due to a precut (58) constituting a separation means.

3. Device according to claim 2, characterized in that a container (33) comprises an associated compartment (34) that serves as a support to an adhesive flexible leaf (35) confining the flexible support (2), whereas the associated compartment (34), which in addition can be detached from the container (33), comprises an opening (36) in which a flange (37) can be inserted, thus constituting a retaining means.

4. Device according to claim 1, characterized in that the flexible support (2) is confined in a flexible bag (38, 42, 55) constituting a protective means obtained from films made of plastic, separately from the container, and the flexible bag is then fixed directly or indirectly on the container.

5. Device according to claim 4, characterized in that the flexible bag (38) comprises an adhesive product on one surface (40) which makes it possible to fix it directly on a wall of the container (39) or indirectly on a label (41), which is itself fixed directly on

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the container (39), thus constituting a fixing means, the flexible bag (38) being capable of being detached from the container (39) by separation, the adhesive portion (40) of the flexible bag (38) being capable of being used to fix a flange (37) which can also be possibly introduced into the flexible bag (38) after an incision has been made therein.

5           6.       Device according to claim 4, characterized in that the flexible bag (38) can also be fixed directly or indirectly on an associated compartment (34) to the container (33).

          7.       Device according to claim 4, characterized in that the flexible bag (42) is fixed by its edges (43) on the container (44), either right in the middle of the wall (45) of the container (44), or on the edge (46) of the container (44) at the same time as the edges of  
10 the wall (45, 47) of the container (44) are fixed to one another, such that the flexible bag is either on the inner side or on the outer side of the container (44).

          8.       Device according to claim 1, characterized in that the flexible support (2) is positioned in a sheath (48) constituting a protective means, which comprises transverse welding strips (51) on both sides of the flexible support (2), and possibly precuts (59)  
15 constituting a separation means, the sheath (48) being welded to the container (49) at the same time as the edge (53) of the container (49), at both ends (54, 55) of the sheath (48), which constitutes a fixing means.

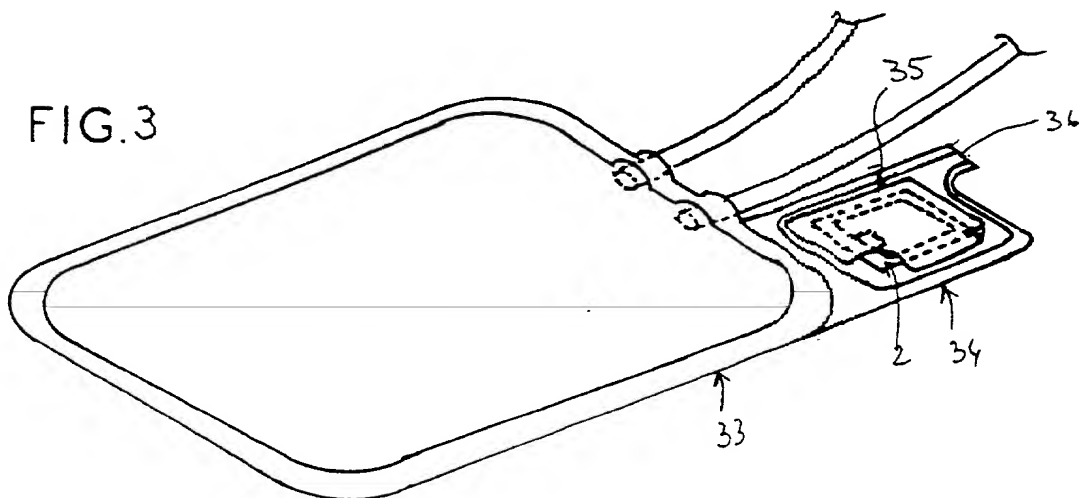
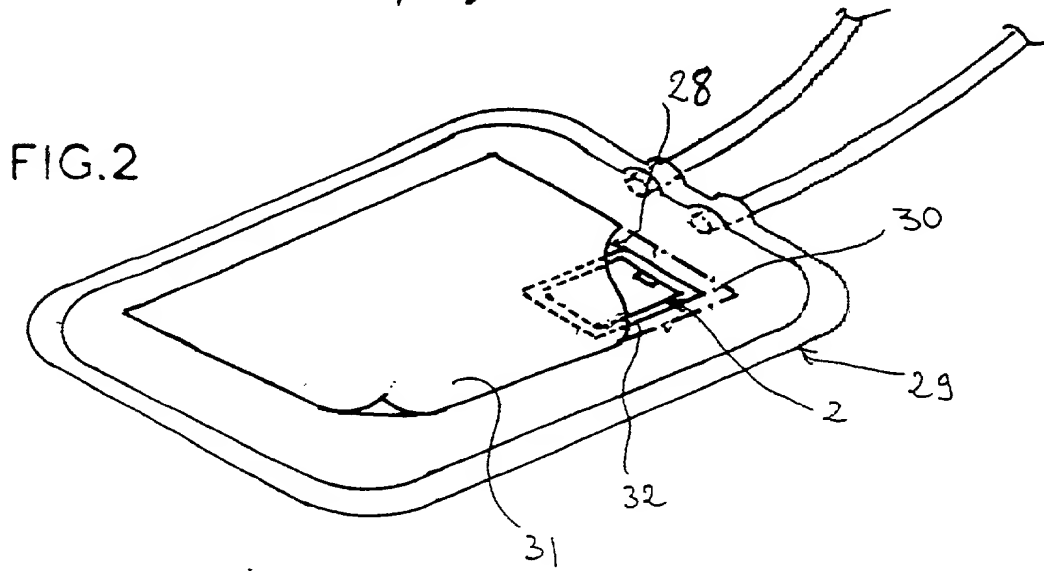
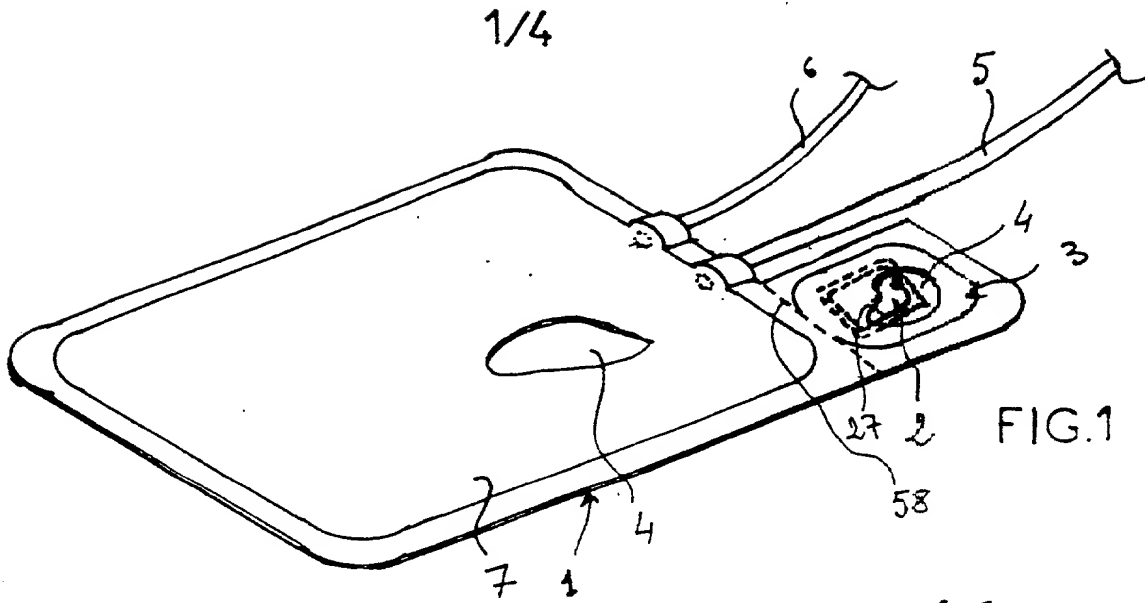
          9.       Device according to claim 1, characterized in that a means for fixing the electronic memory card (9) on the bag (10) is constituted of a fixing device (25) passing  
20 through the hole (12) made in the bag (10) and the hole (13) made in the electronic memory card (9).

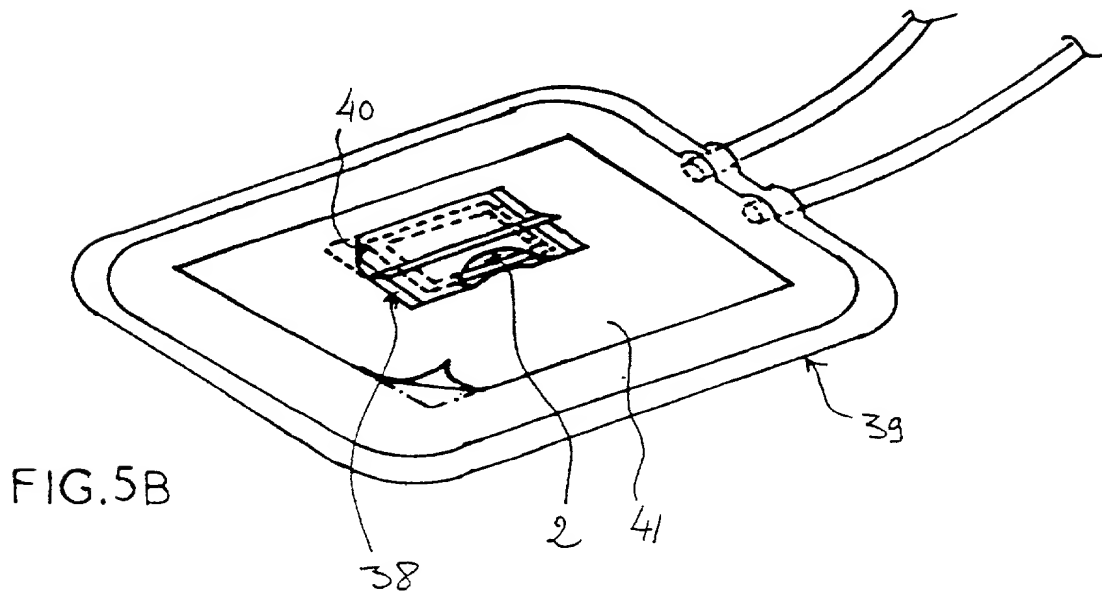
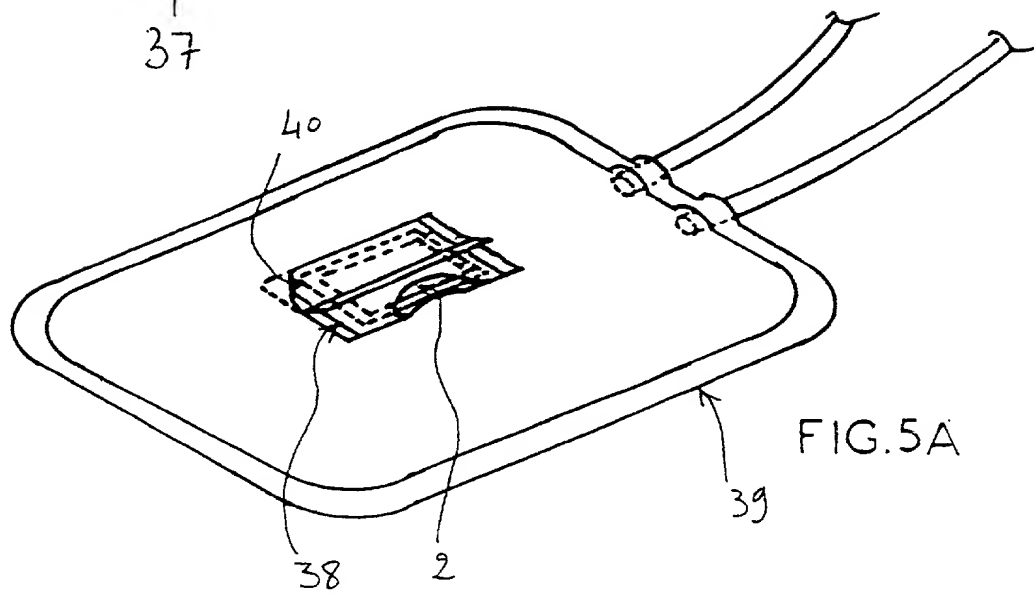
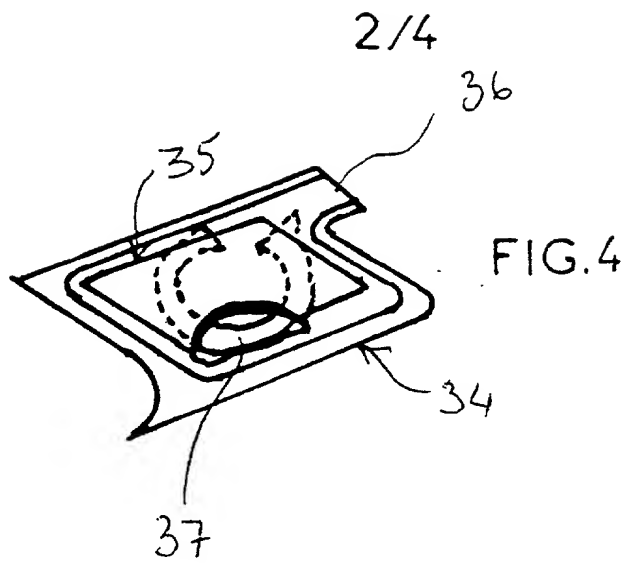
          10.      Device according to claim 1, characterized in that a means for protecting the electronic memory card (9) is constituted by a sheath (18) that covers the electronic memory card (9) after each use.

25           11.      Device according to claim 1, characterized in that a means for protecting the electronic memory card (22) is constituted of a sheath (24) affixed to the bag (19) formed of two flexible walls (20, 21) closed on three sides and comprising a hole extending through the two flexible walls (20, 21), making it possible to maintain the electronic memory card (22) sandwiched between the two flexible walls (20, 21) by a fixing device (25).

30           12.      Device according to claim 2, characterized in that a means for retaining the flexible support (2) consists of providing the pipe (5) with a sheath (26) on which the portion of the films (4, 7) constituting the sealed compartment (3) is fixed, and after the donation, hot pressing the pipe (5) on both sides of the sheath (26) to obtain a flange.

- |   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |
|---|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|
| 1 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |





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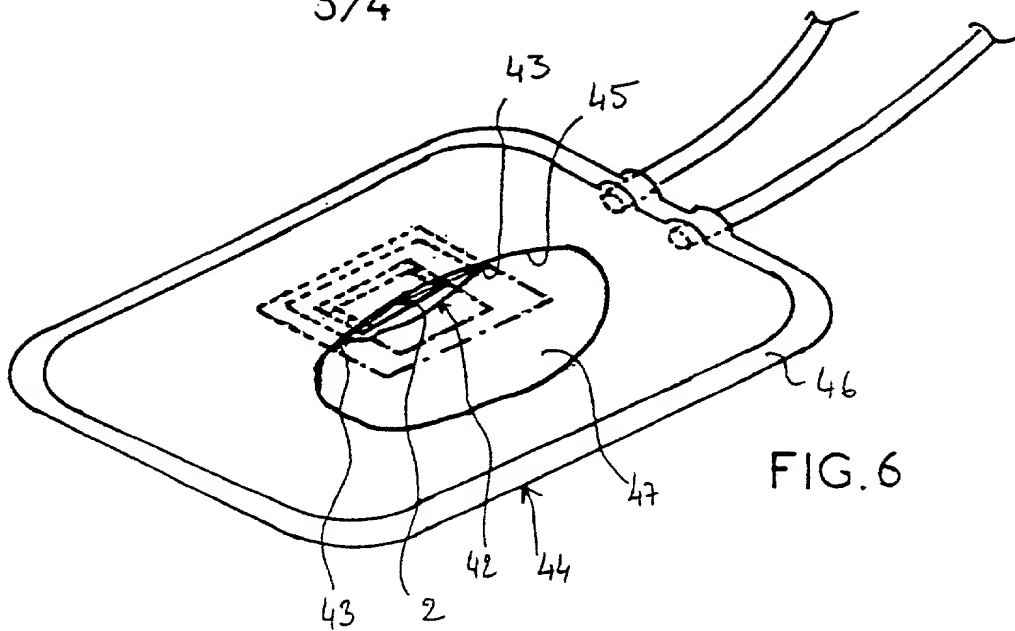


FIG. 6

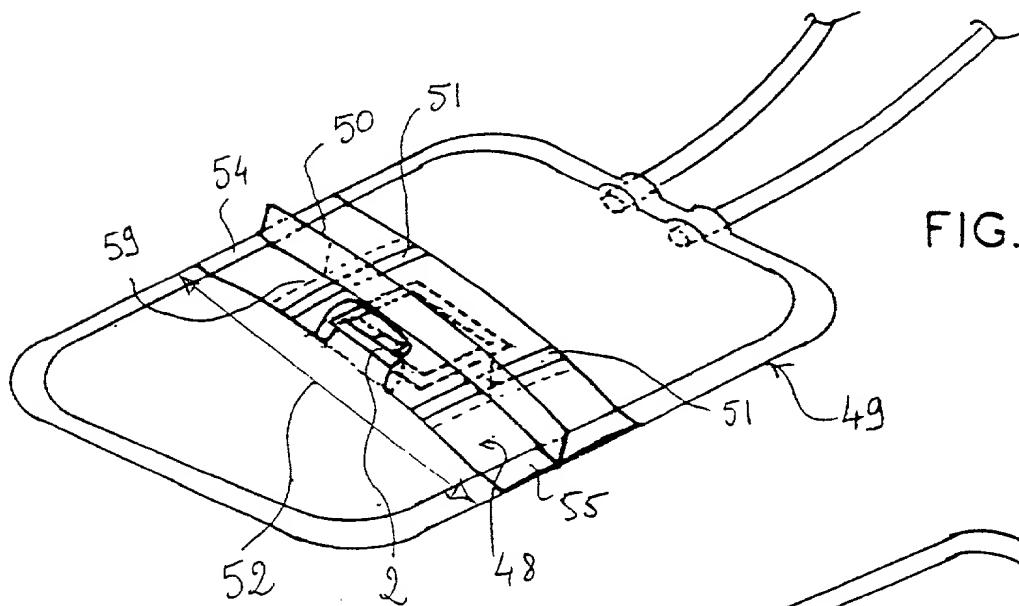


FIG. 7

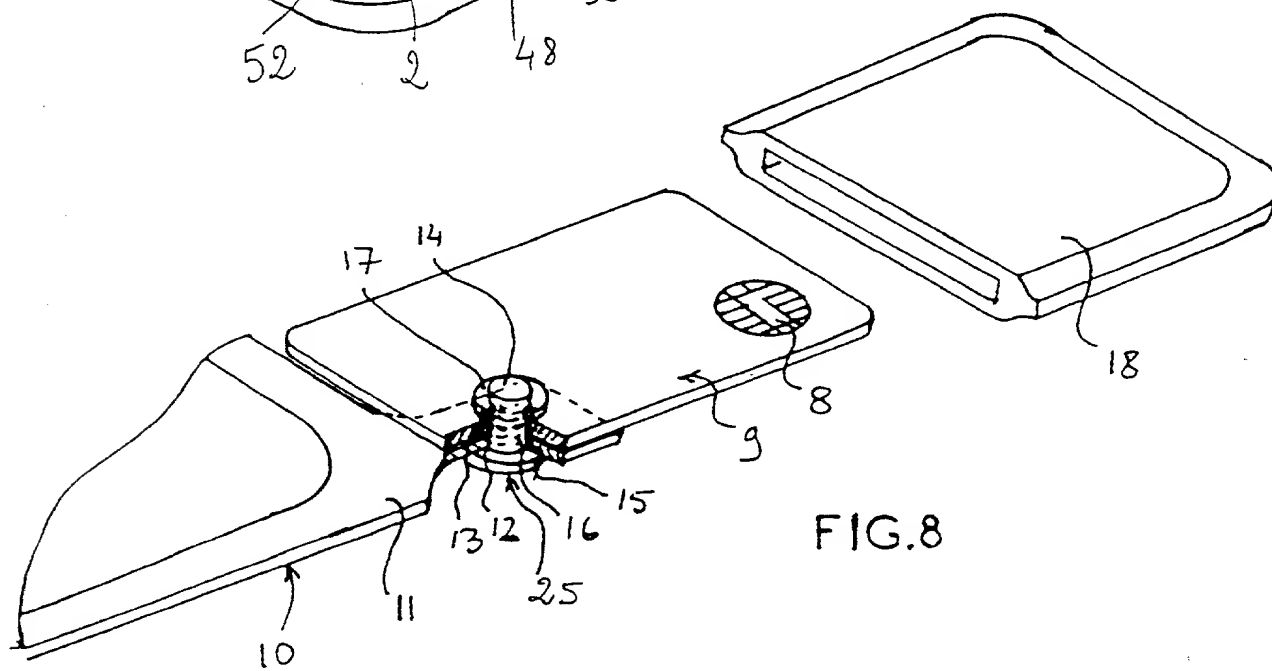


FIG. 8

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FIG.9

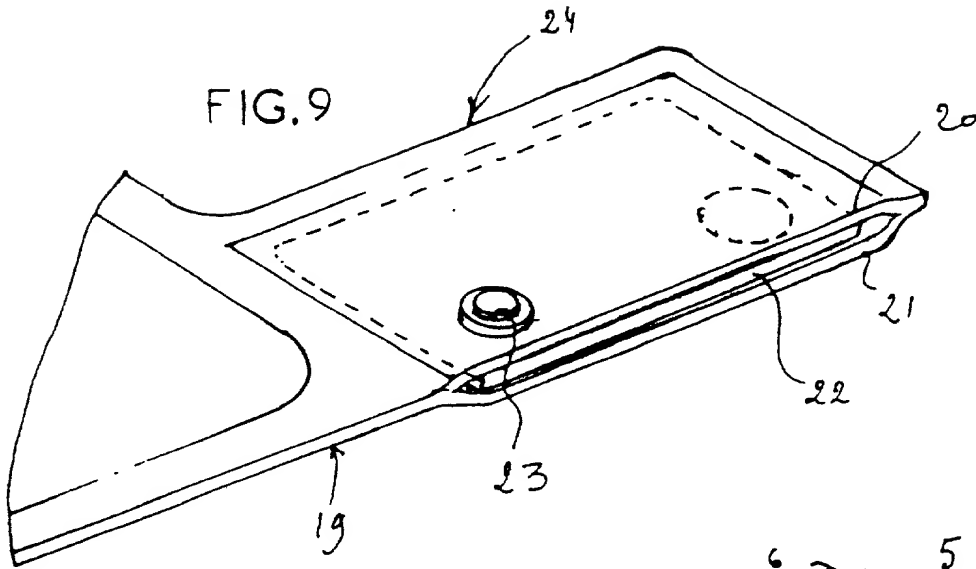


FIG.10

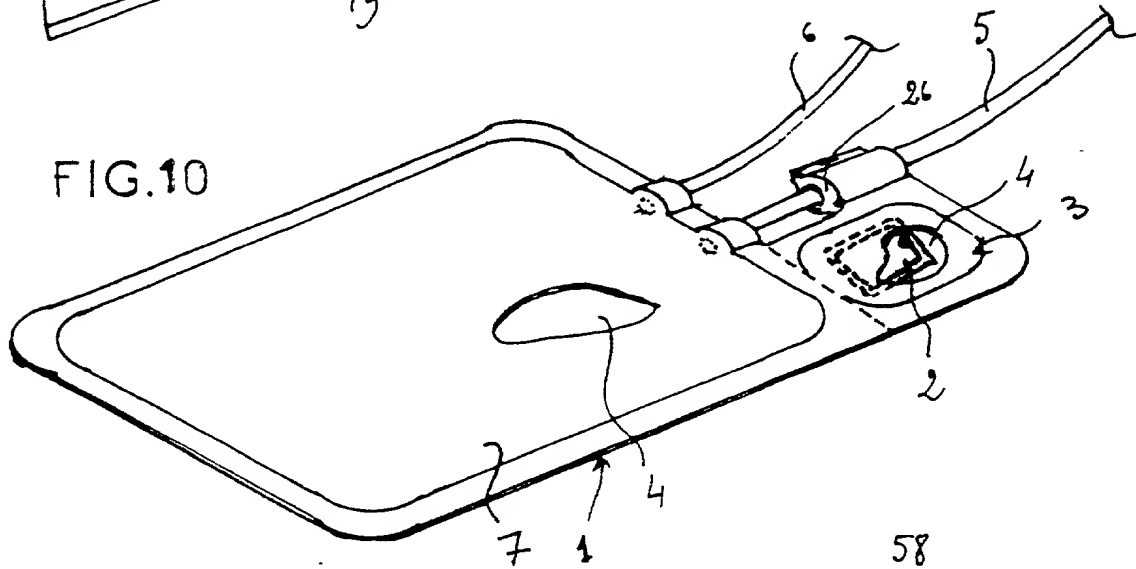
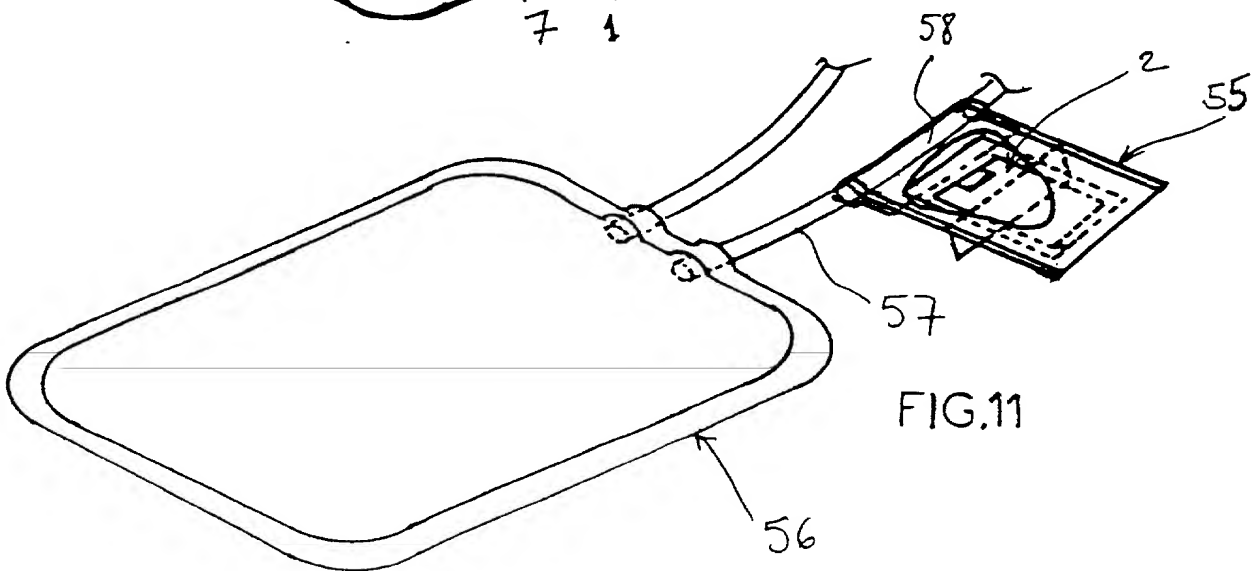


FIG.11



09647921-14300

# French Language Utility or Design Patent Application Declaration

**POUVOIR:** En tant qu'inventeur, je désigne l'(les) avocat(s) et/ou l'(les) agent(s) associés au Numéro Client indiqué ci-dessous pour poursuivre la procédure de cette demande et traiter toute affaire la concernant auprès de l'Office des Brevets et des Marques, et autorise à ce que toute correspondance soit associée à ce Numéro Client.

**POWER OF ATTORNEY:** As a named inventor, I hereby appoint the attorney(s) and/or agent(s) associated with the Customer Number provided below to prosecute this application and transact all business in the Patent and Trademark Office connected therewith, and direct that all correspondence be addressed to that Customer Number.

**NUMERO CLIENT 7055**

**CUSTOMER NUMBER 7055**

Les avocats actuellement désignés sont énumérés ci-après:

The appointed attorneys presently include:

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(703) 716-1191

Nom complet du seul ou premier inventeur Jean-Claude MONGRENIER	Full name of sole or first inventor Jean-Claude MONGRENIER 1-00
Signature de l'inventeur <i>[Signature]</i> Date 13/10/2005	Inventor's signature <i>[Signature]</i> Date 10/13/2005
Domicile 5, rue Charles Rhône Saint Germain en Laye, France	Residence Saint Germain en Laye, France FR
Nationalité France	Citizenship France
Adresse Postale 10, rue du Docteur J.P. Lamare, 5, rue Charles Rhône F-78100 Saint Germain en Laye, France	Post Office Address 10, rue du Docteur J.P. Lamare, 5, rue Charles Rhône F-78100 Saint Germain en Laye, France
Nom complet du second co-inventeur, le cas échéant	Full name of second joint inventor, if any
Signature du second inventeur Date	Second Inventor's Signature Date
Domicile	Residence
Nationalité	Citizenship
Adresse Postale	Post Office Address
(Fournir les mêmes renseignements et la signature de tout co-inventeur supplémentaire).	(Supply similar information and signature for third and subsequent joint inventors.)

## French Language Utility or Design Patent Application Declaration

Je revendique par le présent acte tout bénéfice, en vertu du Titre 35 §119(e) du Code des Etats-Unis, de toute demande de brevet provisoire effectuée aux Etats-Unis et figurant ci-dessous.

(Application No.)  
(No. de la demande)

(Application No.)  
(No. de la demande)

(Application No.)  
(No. de la demande)

☐ D'autres demandes provisoires sont énumérées sur la feuille de priorité supplémentaire ci-jointe.

Je revendique par le présent acte tout bénéfice, en vertu du Titre 35, §120 du Code des Etats-Unis, de toute demande de brevet effectuée aux Etats-Unis, ou en vertu du Titre 35, §365 (c) du même Code, de toute demande internationale PCT désignant les Etats-Unis et figurant ci-dessous et, dans la mesure où l'objet de chacune des revendications de cette demande de brevet n'est pas divulgué dans la demande antérieure américaine ou internationale PCT, en vertu des dispositions du premier paragraphe du Titre 35, §112 du Code des Etats-Unis, je reconnais devoir divulguer toute information pertinente à la brevetabilité, comme défini dans le Titre 37, §1.56 du Code fédéral des réglementations, dont j'ai pu disposer entre la date de dépôt de la demande antérieure et la date de dépôt de la demande nationale ou internationale PCT de la présente demande:

(Application No.)  
(No. de la demande)

(Day/Month/Year Filed)  
(Jour/Mois/Année de dépôt)

(Application No.)  
(No. de la demande)

(Day/Month/Year Filed)  
(Jour/Mois/Année de dépôt)

☐ D'autres demandes américaines ou internationales sont énumérées sur la feuille de priorité supplémentaire ci-jointe.

Je déclare par le présent acte que toute déclaration ci-incluse est, à ma connaissance, véridique et que toute déclaration formulée à partir de renseignements ou de suppositions est tenue pour véridique; et de plus, que toutes ces déclarations ont été formulées en sachant que toute fausse déclaration volontaire ou son équivalent est passible d'une amende ou d'une incarcération, ou des deux, en vertu de la Section 1001 du Titre 18 du Code des Etats-Unis, et que de telles déclarations volontairement fausses risquent de compromettre la validité de la demande de brevet ou du brevet délivré à partir de celle-ci.

Le(s) soussigné(s) autorise(nt) par la présente le(s) avocat(s) américain(s) ou le(s) mandataire(s) ci-après désigné(s) à accepter et à suivre les instructions, soit de son(leurs) conseil(s) en brevet étranger(s), soit du représentant officiel de la société, concernant toute démarche nécessaire à effectuer auprès de l'Office américain des Brevets et des Marques concernant cette demande, sans communication directe entre le(s) avocat(s) américain(s) ou le(s) mandataire(s) nommé(s) par la présente sera(ont) informé(s) par le(s) soussigné(s). Dans l'hypothèse d'un changement dans les donneurs d'instructions, le(s) avocat(s) américain(s) ou le(s) mandataire(s) nommé(s) par la présente sera(ont) informé(s) par le(s) soussigné(s).

I hereby claim the benefit under Title 35, United States Code §119(e) of any United States provisional application(s) listed below.

(Day/Month/Year Filed)  
(Jour/Mois/Année de dépôt)

(Day/Month/Year Filed)  
(Jour/Mois/Année de dépôt)

(Day/Month/Year Filed)  
(Jour/Mois/Année de dépôt)

☐ Additional provisional application numbers are listed on a supplemental priority sheet attached hereto.

I hereby claim the benefit under Title 35, United States Code §120 of any United States application(s), or §365(c) of any PCT international application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT international application in the manner provided by the first paragraph of Title 35, United States Code §112, I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations §1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application.

(Status)  
(Etat)  
(patented, pending, abandoned)  
(brevetée, pendante, abandonnée)

(Status)  
(Etat)  
(patented, pending, abandoned)  
(brevetée, pendante, abandonnée)

☐ Additional U.S. or international application numbers are listed on a supplemental priority sheet attached hereto.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

The undersigned hereby authorizes the U.S. attorney or agent named herein to accept and follow instructions from either his foreign patent agent or corporate representative, if any, as to any action to be taken in the Patent and Trademark Office regarding this application without direct communication between the U.S. attorney or agent and the undersigned. In the event of a change in the persons from whom instructions may be taken, the U.S. attorney or agent named herein will be so notified by the undersigned.

**Declaration and Power of Attorney For Utility or Design Patent Application**

Déclaration pour Demandes de Brevet d'Utilité et de Modèle avec Pouvoirs

French Language Declaration

En tant qu'inventeur nommé ci-après, Je déclare par le présent acte que:

Mon domicile, mon adresse postale et ma nationalité sont ceux figurant ci-dessous à côté de mon nom.

Je crois être le premier inventeur original et unique (si un seul nom est mentionné ci-dessous), ou l'un des premiers co-inventeurs originaux (si plusieurs noms sont mentionnés ci-dessous) de l'objet revendiqué, pour lequel une demande de brevet a été déposée concernant l'invention intitulée

**DISPOSITIF PERMETTANT D'ASSOCIER UN CONTENEUR ET UN DISPOSITIF DE SUIVI INFORMATIQUE DE SON CONTENU**

et dont la description est fournie ci-jointe à moins que la case suivante n'ait été cochée:

☒ a été déposée 13 Avril 1999  
sous le numéro de demande des Etats-Unis \_\_\_\_\_  
et modifiée le \_\_\_\_\_ (le cas échéant) ou,  
le numéro de demande internationale PCT PCT/FR99/00850  
et modifiée le \_\_\_\_\_ (le cas échéant).

Je déclare par le présent acte avoir passé en revue et compris le contenu de la description ci-dessus, revendications comprises, telles que modifiées par toute modification dont il aura été fait référence ci-dessus.

Je reconnais devoir divulguer toute information pertinente à la brevetabilité, comme défini dans le Titre 37, § 1.56 du Code fédéral des réglementations.

Je revendique par le présent acte avoir la priorité étrangère, en vertu du Titre 35, §119(a)-(d) ou §365(b) du Code des Etats-Unis, sur toute demande étrangère de brevet ou certificat d'inventeur ou, en vertu du Titre 35, §365(a) du même Code, sur toute demande internationale PCT désignant au moins un pays autre que les Etats-Unis et figurant ci-dessous. J'ai aussi indiqué ci-dessous, en cochant la case "Non", toute demande étrangère de brevet, tout certificat d'inventeur ou toute demande internationale PCT ayant une date de dépôt précédant celle de la demande à propos de laquelle une priorité est revendiquée.

Prior foreign applications  
Demandes antérieures étrangères

<u>98/04802</u>	<u>France</u>	<u>14 April 1998</u>
(Number)	(Country)	(Day/Month/Year Filed)
(Numéro)	(Pays)	(Jour/Mois/Année de dépôt)
_____	_____	_____
(Number)	(Country)	(Day/Month/Year Filed)
(Numéro)	(Pays)	(Jour/Mois/Année de dépôt)

☐ D'autres demandes étrangères sont énumérées sur la feuille de priorité supplémentaire ci-jointe.

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

**DEVICE FOR ASSOCIATING A CONTAINER AND A COMPUTERISED DEVICE MONITORING ITS CONTENTS**

\_\_\_\_\_ the specification of which is attached hereto unless the following box is checked:

☒ was filed on 13 April 1999  
as United States Application Number \_\_\_\_\_  
and was amended on \_\_\_\_\_ (if applicable) or,  
PCT International Application Number PCT/FR99/00850  
and was amended on \_\_\_\_\_ (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, § 1.56.

I hereby claim foreign priority under Title 35, United States Code §119 (a-d) or §365(b) of any foreign application(s) for patent or inventor's certificate, or §365(a) of any PCT international application which designated at least one country other than the United States, listed below. I have also identified below, by checking the "No" box, any foreign application for patent or inventor's certificate, or of any PCT international application having a filing date before that of the application on which priority is claimed:

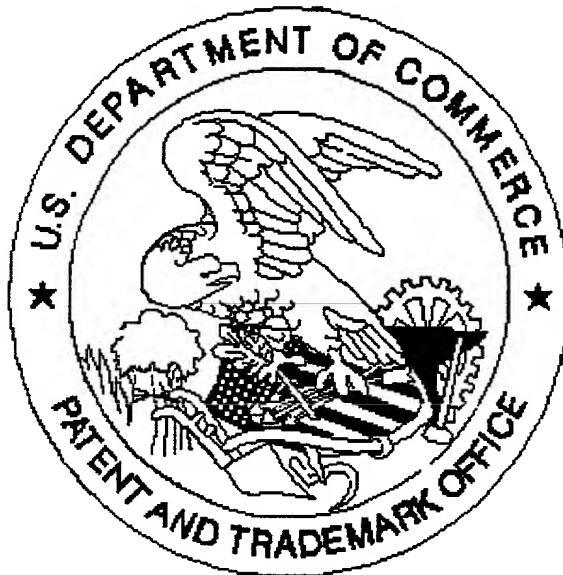
Priority claimed  
Priorité revendiquée

<input checked="" type="checkbox"/>	<input type="checkbox"/>
Yes	No
Oui	Non
<input type="checkbox"/>	<input type="checkbox"/>
Yes	No
Oui	Non

☐ Additional foreign application numbers are listed on a supplemental priority sheet attached hereto.

# United States Patent & Trademark Office

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